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EXAMINER	
SONG, HEE K	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,508	STRUYK, DAVID A.	
	Examiner	Art Unit	
	HEE SONG	2433	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is in response to the Applicant's response filed on 26 March 2010. New claims 22 and 23 have been added. Claims 1, 22, 41 and 54 are amended. Claims 1, 3-56 are pending, in which claims 1, 22, 41 and 54 are in independent form.

Response to Amendment

In view of the amendments, submitted on 26 March 2010, applicant's arguments have been carefully and respectfully considered as they relate to the claim rejections to claims 1, 3-56 under 35 U.S.C. 103(a) have been considered but they are moot in view of new grounds of rejection. This action is made final.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-14, 16-26, 28-50, and 52-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yerazunis et al. (US PG-Pub. 2003/0026449 A1) hereinafter Yerazunis, and in view of Makoto (JP Application No. 07-185918).

1. As to claim 1, Yerazunis teaches an apparatus for confidential viewing of a fundamental image utilizing spatial multiplexing image modification (see abstract, Figs. 1 and 2 and claims 1-19; mostly, confidential viewing via multiplexing but could be extended to a confidential viewing via spatial multiplexing, too.), comprising:

(d) an image viewing device having polarization means cooperating with said image display device for allowing extraction and viewing only of said fundamental image components from said image display device by both eyes simultaneously (see paragraphs [0018]-[0021] and [0046]-[0048], e.g., a properly modulated optical shutter device 140 in Fig. 2).

Even though it's well-known that an image displace is comprised of a plurality of adjacent displace regions (e.g., tiles), the following is not explicitly taught in Yerazunis:

"**(a) an image display device comprising a plurality of adjacent display regions of different polarization states**;

(b) a plurality of spatially multiplexed fundamental image components and related masking image components derived from said fundamental image components being simultaneously displayed on said image display device in association with said display regions and in such arrangement as to render said fundamental image components substantially indecipherable to the naked eye;

(c) said fundamental image components being representative of a fundamental image and being associated with said display regions having a common state of polarization that is different than the state of polarization of said display regions

with which said masking image components are associated" however Makoto discloses how two spatially multiplexed images can have two different polarization states (e.g., 'A' and 'B') in an orthogonal relationship and viewing glasses adopted for viewing the fundamental images only by authorized persons (see abstract, Figs. 1 and 2, paragraphs 17 and 18)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the current invention was made, having the teachings of Yerazunis and Makoto before him or her, to modify Yerazunis's scheme for privacy-enhanced displace device by including Makoto's scheme for selecting the fundamental image based on the polarization states associated with the fundamental image and the masking image. The suggestion/motivation for doing so would have been to select and view a desired image utilizing viewing glasses with its polarization state in synchronization with that of fundamental image being displayed on the display device such that unauthorized viewers without appropriate viewing glasses won't be able to view the fundamental images.

2. (canceled)

2. As to claim 3, in view of claim 1, Yerazunis teaches **wherein at least some of said masking image components are the derived inverse of corresponding said fundamental image components displayed therewith, and the display of said fundamental and masking image components on said image display device**

generates a combined neutral image that appears substantially featureless to the naked eye (see discussion in the rejected claim 1; It is noted that the spatially multiplexed images are rendered featurelss.).

3. As to claim 4, in view of claim 3, Yerazunis teaches **overlay image components displayed in association with said masking image components such that an overlay image appears to the naked eye as being overlaid upon said substantially featureless image** (see Yerazunis, Fig. 2 and paragraph [0032], where the displayed image 261 is a overlay image when viewed without an appropriate optical viewing glasses.)

4. As to claim 5, in view of claim 1, Yerazunis teaches **wherein the display of said fundamental image components and said masking image components on said image display device are positionally alternated in time** (Per Yerazunis, paragraphs [0015]-[0018], the row of tiles of fundamental images is followed by row of tiles of corresponding mask images and the row of tiles of mask images can be followed by row of tiles of corresponding fundamental images in place in two consecutive frames of sequence.; Assuming that the tile of following or previous neighboring row/column has similar pixel composition, the following/previous neighboring row/column tiles of mask images can be substituted, instead.)

5. As to claim 6, in view of claim 1, Yerzunis teaches **wherein said fundamental image components are positionally altered in time to associate with separate sets of said display regions having differing polarization states** (see discussion in the rejected claim 5)

6. As to claim 7, in view of claim 1, Yerzunis teaches **wherein at least said fundamental image components are time multiplexed with derived inverse image components thereof** (see Yerzunis, paragraph [0009]; Assuming that the tile of following or previous neighboring row/column has similar pixel composition, its row/column tiles of its own mask images can be substituted, instead, in place of the next row/column of tiles of images. In the next frame, the location of fundamental images is fixed but the neighboring row/column can be arranged as described before.; Fi | Ii → I(i+1) | F(i+1) instead of Fi | I(i+1) → Ii | F(i+1)).

7. AS to claim 8, in view of claim 1, Yerzunis teaches **wherein both said fundamental image components and said masking image components are time multiplexed with derived inverse image components thereof** (see discussion in the rejected claim 7).

8. As to claim 9, in view of claim 8, Makoto teaches **wherein each of said masking image components is the derived inverse of a corresponding fundamental image component associated with the same said display region** (see Fig. 2, where two neighboring regions have opposite polarization states).

9. As to claim 10, in view of claim 1, Yerzunis teaches **wherein said polarization states of said display regions are fixed** (Each display region (e.g., row of tiles) is occupied by fundamental image components, then by masking image components and the polarization states are in orthogonal relationship. For the shake of the polarization states of viewing glasses being dynamic (i.e, changing from 180 degree to 0 degree to 180 degree), the polarization states of display regions can be fixed with one state such that the alternating fundamental and masking images can be associated with different polarization states at each refreshing of image.)

10. As to claim 11, in view of claim 1, Yerzunis teaches **wherein said polarization states of said display regions are variable** (see the discussion the rejected claim 1; in contrast to the polarization states of viewing glasses being dynamic (i.e, changing from 180 degree to 0 degree to 180 degree), the polarization states of display regions can be varied such that the alternating fundamental and masking images can be associated with identical polarization states at each refreshing of image.)

11. As to claim 12, in view of claim 11, Yerzunis teaches **wherein each of said display regions include a variable polarizer capable of altering the state of polarization thereof** (see Yerazunis, paragraphs [0043] – [0048]).

12. Asto claim 13, in view of claim 12, Yerazunis teaches **wherein said variable polarizer is comprised of an electrically-controlled liquid crystal device** (see Yerazunis, paragraph [0020] for the LCD display).

13. As to claim 14, in view of claim 1, Makoto teaches **wherein said different polarization states of said display regions are generally orthogonal to one another** (see Fig. 2).

14. As to claim 16, in view of claim 1, Makoto teaches **wherein said display regions with which said fundamental image components are associated are cross-polarized relative to said display regions with which said masking image components are associated** (see discussion in the rejected claim 1 for having micropolarized regions with different polarization states for the two different spatially multiplexed images.)

15. As to claim 17, in view of claim 1, Yerazunis teaches **wherein said image display device is an electronic display device comprising a plurality of display pixels and having a periodic display refresh cycle** (e.g., refresh rate of 60 Hz, see Yerazunis, paragraph [0035] and [0047])**, and wherein each of said display regions includes at least one of said pixels of said electronic display device** (e.g., rows or columns of tiles as discussed in the rejected claim 1).

16. As to claim 18, in view of claim 17, Yerazunis teaches **wherein said electronic display device includes a transparent overlay with designated separate areas of cross-polarized orientations that align with said pixels to form said plurality of differently polarized display regions** (see Yerazunis, Fig. 2 and paragraph [0032], where the displayed image 261 is a overlay image when viewed without an appropriate optical viewing glasses.)

17. As to claim 19, in view of claim 17, Yerazunis teaches **wherein said fundamental image components and said masking image components are regenerated upon each said display refresh cycle in association with a separate set of said pixels having a different polarization state than that of the next previous said display cycle of said electronic display device**(see discussion in the rejected claims 1 and 17; e.g., at the refreshing of image, a new image frame is obtained to compute fundamental image components and its masking image components).

18. As to claim 20, in view of claim 19, Makoto teaches **wherein said image viewing device is comprised of active polarized eyewear which communicates with said electronic display device to change states of polarization in sync with said display refresh cycle of said electronic display device** (see par. 18, e.g., polarization glasses 23).

19. As to claim 21, in view of claim 17, Yerazunis and Makoto teaches **wherein said display regions of said electronic display device include a variable polarizing means for altering the state of polarization thereof, and said image viewing device is comprised of active polarized eyewear that communicates with said electronic display device to change states of polarization in sync with changes in the polarization state of said display regions** (see Yerazunis, paragraphs [0018]-[0021] and [0044]-[0048] and Makoto, para. 18).

20. As to claim 22, Yerazunis teaches an apparatus for confidential viewing of a fundamental image utilizing spatial multiplexing image modification, comprising:

(d) image viewing means cooperatively polarized with said display regions of said image display device for allowing viewing only of said fundamental image component of said combined substantially featureless image by both eyes

simultaneously (see paragraphs [0018]-[0021] and [0046]-[0048], e.g., a properly modulated optical shutter device 140 in Fig. 2).

Even though it's well-known that an image displace is comprised of a plurality of adjacent displace regions (e.g., tiles), the following is not explicitly taught in Yerazunis:

"(a) **an image display device comprising a plurality of adjacent display regions of different polarization states**;

(b) means for generating an image on said image display device having a fundamental image component and a corresponding inverse image component simultaneously displayed and spatially arranged in association with said display regions so as to form a combined image that appears substantially featureless to the naked eye;

(c) said image generating means and said image display device cooperatively communicating so that said fundamental image component is associated with at least one of said display regions having a polarization state different than that with which said inverse image component is associated"; however, Makoto discloses how two spatially multiplexed images can have two different polarization states (e.g., 'A' and 'B') in an orthogonal relationship and viewing glasses adopted for viewing the fundamental images only by authorized persons (see abstract, Figs. 1 and 2, paragraphs 17 and 18)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the current invention was made, having the teachings of Yerazunis and Makoto before him or her, to modify Yerazunis's scheme for privacy-enhanced displace device by including Makoto's scheme for selecting the fundamental image based on the polarization states associated with the fundamental image and the masking image. The suggestion/motivation for doing so would have been to select and view a desired image utilizing viewing glasses with its polarization state in synchronization with that of fundamental image being displayed on the display device such that unauthorized viewers without appropriate viewing glasses won't be able to view the fundamental images.

21. As to claim 23, in view of claim 22, Yerazunis teaches **wherein said plurality of display regions are arranged in alternating columns of different polarization states** (see discussion in the rejected claim 22; see Yerzunis, paragraph [0009]; Assuming that the tile of following or previous neighboring row/column has similar pixel composition, its row/column tiles of its own mask images can be substituted, instead, in place of the next row/column of tiles of images. In the next frame, the location of fundamental images is fixed but the neighboring row/column can be arranged as described before.; Fi | Ii → I(i+1) | F(i+1) instead of Fi | I(i+1) → Ii | F(i+1).)

22. As to claim 24, in view of claim 22, Yerazunis teaches **wherein said plurality of display regions are arranged in alternating rows of different polarization states** (see discussion in the rejected claim 23).

23. AS to claim 25, in view of claim 22, Makoto teaches **wherein said combined substantially featureless image is comprised of a plurality of said fundamental image components and corresponding inverse image components associated with alternating sets of said adjacent display regions having different polarization states** (see Fig. 2).

24. As to claim 26, in view of claim 22 Makoto teaches **wherein said different polarization states of said display regions are generally orthogonal to one another** (see Makoto, Fig. 2).

25. As to claim 28, in view of claim 22, Yerazunis teaches **wherein said plurality of display regions have fixed polarization states** (Each display region (e.g., row of tiles) is occupied by fundamental image components, then by masking image components and the polarization states are in orthogonal relationship. For the shake of the polarization states of viewing glasses being dynamic (i.e, changing from 90 degree to 0 degree to 90 degree), the polarization states of display regions can be fixed with one

state such that the alternating fundamental and masking images can be associated with different polarization states at each refreshing of image.)

26. As to claim 29, in view of claim 22, Yerazunis teaches **wherein said plurality of display regions have variable polarization states** (In contrast to the polarization states of viewing glasses being dynamic (i.e, changing from 180 degree to 0 degree to 180 degree), the polarization states of display regions can be varied such that the alternating fundamental and masking images can be associated with identical polarization states in the viewing glasses at each refreshing of image.)

27. As to claim 30, in view of claim 29, Yerazunis teaches **wherein each of said display regions comprise an electrically variable polarizer** (see Yerazunis, paragraphs [0043] – [0048]).

28. As to claim 31, in view of claim 30, Yerazunis teaches **wherein said variable polarizer comprises a liquid crystal device capable of altering polarization state** (see Yerazunis, paragraph [0020] and the discussion in the rejected claim 12 for the LCD display).

29. As to claim 32, in view of claim 22, Yerazunis teaches **wherein said image display device constitutes an electronic display device having a plurality of display pixels, each of said display regions comprising at least one of said pixels of said electronic display device** (e.g., rows or columns of tiles as discussed in the rejected claim 22).

30. As to claim 33, in view of claim 32, Yerazunis teaches **wherein said fundamental image component is associated with at least one of said pixels having a common polarization state, and said corresponding inverse image component is associated with at least one of said pixels having a different polarization state** (see Yerzunis, paragraph [0009]; Assuming that the tile of following or previous neighboring row/column has similar pixel composition, its row/column tiles of its own mask images can be substituted, instead, in place of the next row/column of tiles of images. In the next frame, the location of fundamental images is fixed but the neighboring row/column can be arranged as described before.; Fi | Ii → I(i+1) | F(i+1) instead of Fi | I(i+1) → Ii | F(i+1); see Faris, col. 18, lines 30-67 for having different polarization states for the alternating rows/columns of composite image).

31. As to claim 34, in view of claim 32, Yerazunis teaches **wherein said electronic display device is configured as a liquid crystal display device, and each of said display regions includes an electrically controllable polarizer that is comprised of**

a liquid crystal device capable of altering polarization state based on applied voltage thereto (see paragraphs [0018]-[0021] and [0044]-[0048]).

32. As to claim 35, in view of claim 32, Makoto teaches **means for generating an overlay image visible to the naked eye and appearing over said substantially featureless image on said electronic display device, said overlay image having an overlay image component which is associated with at least one of said display regions having a polarization state common to that with which said inverse image component is associated** (see Fig. 2)

33. As to claim 36, in view of claim 32, Yerazunis teaches **wherein said electronic display device includes a transparent polarizing overlay extending over said display pixels, said polarizing overlay being constructed and arranged to alter the polarization state of some of said display pixels to generate said plurality of display regions of different polarization states** (see Yerazunis, paragraphs [0020] and [0047] for the liquid crystal polarization rotator that can change the polarization states in a specific viewing areas.)

34. As to claim 37, in view of claim 22, Yerazunis and Makoto teaches **wherein said image display device includes a transparent polarizing overlay constructed and arranged to generate said plurality of adjacent display regions of different polarization states** (see discussion in the rejected claim 36).

35. As to claim 38, in view of 22, Yerazunis teaches **wherein said fundamental image component is regenerated anew over time in association with a different said display region** (Assuming that the tile of following or previous neighboring row/column has similar pixel composition, its row/column tiles of its own mask images can be substituted, instead, in place of the next row/column of tiles of images. In the next frame, the location of fundamental images is fixed but the neighboring row/column can be arranged as described before.; Fi | Ii → I(i+1) | F(i+1) instead of Fi | I(i+1) → Ii | F(i+1).)

36. As to claim 39, in view of claim 38, Yerazunis teaches **wherein said different display region has a polarization state different than that with which said fundamental image component was previously associated** (see Faris, col 16., lines 13-38 for the two images with different polarization states arranged in checkerboard, row-by-row or column-by-column pattern for spatial multiplexing and for selecting one of the two image types with the aid of optical visualizing eyeglasses.)

37. As to claim 40, in view of claim 38, Yerazunis teaches **wherein said corresponding fundamental and inverse image components switch associated display regions over time** (see discussion in the rejected claim 38).

38. As to claim 41, Yerazunis teaches a method for confidential viewing of a fundamental image utilizing spatial multiplexing image modification, comprising the steps of:

(c) viewing said image display device through a polarized filtering means that communicates with said image display device and allows passage and viewing by both eyes simultaneously only of said fundamental image components of said fundamental image (see paragraphs [0018]-[0021] and [0046]-[0048], e.g., a properly modulated optical shutter device 140 in Fig. 2).

The following are not explicitly taught in Yerazunis:

"(a) polarizing adjacently positioned display regions of an image display device with different states of polarization;

(b) simultaneously displaying spatially multiplexed fundamental image components of a fundamental image with corresponding inverse image components thereof on said image display device in such arrangement as to neutralize and render said fundamental image components substantially invisible to the naked eye, whereby said fundamental image components are associated with said display regions having a state of polarization different than that with

which said inverse image components are associated" however Makoto discloses how two spatially multiplexed images can have two different polarization states (e.g., 'A' and 'B') in an orthogonal relationship and viewing glasses adopted for viewing the fundamental images only by authorized persons (see abstract, Figs. 1 and 2, paragraphs 17 and 18)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the current invention was made, having the teachings of Yerazunis and Makoto before him or her, to modify Yerazunis's scheme for privacy-enhanced displace device by including Makoto's scheme for selecting the fundamental image based on the polarization states associated with the fundamental image and the masking image. The suggestion/motivation for doing so would have been to select and view a desired image utilizing viewing glasses with its polarization state in synchronization with that of fundamental image being displayed on the display device such that unauthorized viewers without appropriate viewing glasses won't be able to view the fundamental images.

39. As to claim 42, in view of claim 41, Makoto teaches **wherein said step of polarizing said adjacently positioned display regions of said image display device includes the use of at least one electrically variable polarizer capable of altering the state of polarization of at least one of said display regions relative to other said display regions** (see Fig. 2).

40. As to claim 43, in view of claim 42, Yerazunis teaches **wherein said step of polarizing said adjacently positioned display regions is carried out with at least one variable polarizer of liquid crystal construction capable of altering the state of polarization of at least one of said display regions relative to other said display regions based on applied voltage to said variable polarizer** (see rejected claim 42 and see Yerazunis, paragraph [0047] for "the amount of rotation is substantially linearly proportional to the driving voltage.")

41. As to claim 44, in view of claim 41, Makoto teaches **wherein said step of polarizing said adjacently positioned display regions of said image display device includes positioning a polarizing device having separate areas of differently fixed polarization states in alignment with said display regions of said image display device** (see para. 17 and 18)

42. As to claim 45, in view of claim 44, Yerazunis teaches **wherein said step of displaying spatially multiplexed image components includes varying over time the polarization state of said display regions with which said fundamental image components are associated** (see Yerazunis, paragraphs [0043] – [0048]))

43. As to claim 46, in view of claim 41, Yerazunis teaches **wherein said step of displaying spatially multiplexed image components includes periodically alternating said display positions of said fundamental image components and said corresponding inverse image components to appear at differently polarized sets of said display regions of said image display device** (Per Yerazunis, paragraphs [0015]-[0018], the row of tiles of fundamental images is followed by row of tiles of corresponding mask images and the row of tiles of mask images can be followed by row of tiles of corresponding fundamental images in place in two consecutive frames of sequence.; Assuming that the tile of following or previous neighboring row/column has similar pixel composition, the following/previous neighboring row/column tiles of mask images can be substituted, instead.)

44. As to claim 47, in view of claim 41, Makoto teaches **wherein said step of polarizing adjacently positioned display regions of said image display device includes arranging said display regions to alternate spatially between two states of polarization which are generally orthogonal to one another** (see Makoto, Fig. 2).

45. As to claim 48, in view of claim 41, Yerazunis teaches **wherein said step of displaying spatially multiplexed image components includes displaying overlay image components representative of a separate overlay image on said image display device, whereby said overlay image components are associated with at**

least some of said display regions having a polarization state common to that with which said inverse image components are associated (see Yerazunis, Fig. 2 and paragraph [0032], where the displayed image 261 is a overlay image when viewed without an appropriate optical viewing glasses.)

46. As to claim 49, in view of claim 41, Yerazunis teaches **wherein said step of viewing said image display device utilizes passive polarized eyewear to allow passage and viewing only of said fundamental image components of said fundamental image** (see Yerazunis, paragraphs [0046] – [0048] for the optical shutter device in sync with the images of the display device).

47. As to claim 50, in view of claim 41, Yerazunis teaches **wherein said step of viewing said image display device utilizes active polarized eyewear operating in sync with said image display device to allow passage and viewing only of said fundamental image components of said fundamental image** (see Yerazunis, paragraphs [0046]-[0048], [0018]-[0021]).

48. As to claim 52, in view of claim 41, Yerazunis **teaches wherein said step of displaying fundamental and corresponding inverse image components on said image display device generates a combined substantially featureless image to the naked eye** (see discussion in the rejected claim 41).

49. As to claim 53, in view of claim 41, Yerazunis **teaches including the step of periodically exchanging the display position of said fundamental and corresponding inverse image components, while coincidentally altering the polarization state of said display regions associated therewith so as to maintain a common polarization state over time for all said display regions associated with said fundamental image components being displayed** (In contrast to the polarization states of viewing glasses being dynamic (i.e, changing from 180 degree to 0 degree to 180 degree), the polarization states of display regions can be varied such that the alternating fundamental and masking images can be associated with identical polarization states in the viewing glasses at each refreshing of image.)

50. As to claim 54, Yerazunis teaches a method for confidential viewing of a fundamental image utilizing spatial multiplexing image modification, comprising the steps of:

(c) viewing said compound image through said overlay utilizing a lens filter polarized in such manner as to allow passage and viewing by both eyes simultaneously only of said fundamental image components of said fundamental image (see paragraphs [0018]-[0021] and [0046]-[0048], e.g., a properly modulated optical shutter device 140 in Fig. 2).

The following is not explicitly taught in Yerazunis:

"(a) positioning a transparent polarizing overlay over an image display device, said overlay comprising a plurality of adjacently positioned polarizers having different polarization states;

(b) producing a compound image on said display device that is comprised of a plurality of simultaneously displayed spatially multiplexed fundamental image components and masking image components aligned with said polarizers of said overlay, whereby said fundamental image components are representative of a fundamental image and said masking image components are derived from said fundamental image components, whereby said fundamental image components being aligned with a group of said polarizers having a common state of polarization different from that with which said masking image components are aligned" however however Makoto discloses how two spatially multiplexed images can have two different polarization states (e.g., 'A' and 'B') in an orthogonal relationship and viewing glasses adopted for viewing the fundamental images only by authorized persons (see abstract, Figs. 1 and 2, paragraphs 17 and 18)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the current invention was made, having the teachings of Yerazunis and Makoto before him or her, to modify Yerazunis's scheme for privacy-enhanced displace device by including Makoto's scheme for selecting the fundamental image based on the polarization states associated with the fundamental image and the masking image. The suggestion/motivation for doing so would have been to select and view a desired image utilizing viewing glasses with its polarization state in synchronization with that of fundamental image being displayed on the display device such that unauthorized viewers without appropriate viewing glasses won't be able to view the fundamental images.

51. As to claim 55, in view of claim 54, Yerazunis teaches **including the step of time multiplexing said fundamental and masking image components with derived inverse image components thereof** (see discussion in the rejected claim 54 in association with Yerazunis for rendering the composite images from a sequence of frame images unrecognizable by time-multiplexing the images).

52. As to claim 56, in view of claim 55, Yerazunis teaches **wherein said step of viewing said compound image utilizes an active lens filter capable of altering its state of polarization to match that of said fundamental image components** (see Yerazunis, paragraphs [0018]-[0022] and [0045]-[0048]).

Claims 15, 27, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yerazunis, in view of Makoto, and in further view of Faris (US Patent No. 6,002,518).

53. As to claims 15, 27, and 51, in view of claims 1, 22, and 41, respectively, the combination of Yerazunis and Makoto does not explicitly teach wherein at least some of said display regions are left-hand circularly polarized and at least some of said display regions are right-hand circularly polarized. Faris teaches **wherein at least some of said display regions are left-hand circularly polarized and at least some of said display regions are right-hand circularly polarized** (see Faris, Fig. 4 and col. 8, lines 48-63 for LHS and RHS circular polarization states).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the current invention was made, having the teachings of Yerazunis, Makoto and Faris before him or her, to modify the scheme of Yerazunis and Makoto for privacy-enhanced displace device by including Faris's scheme for utilizing the a phase-retarding polarizer of the displace. The suggestion/motivation for doing so would have been to create images orthogonal to each other utilizing the polarizer.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEE SONG whose telephone number is (571)270-3260. The examiner can normally be reached on Mon - Fri, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu-Oanh Bui can be reached on (571)272-7291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KIEU-OANH BUI/
Acting Supervisory Patent Examiner, Art Unit 2433

HEE SONG
Examiner, Art Unit 2433
6/19/2010